

REMARKS/ARGUMENTS

Claims 2-22 and 29-37 are currently pending in the present patent application.

In an Office Action mailed on February 12, 2009, the Examiner rejects claims 2-22 and 29-37 under 35 USC § 112, first paragraph, as failing to comply with the written description. The Examiner asserts that "[t]he claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. There are no supports within the specification that the signal database storing interface 'communications protocol' configuration information or 'retrieving communication protocol interface configuration information'."

One page 4, lines 6-14 of the present specification, in describing the signal database it is stated that:

[t]he configuration and initialization module may retrieve configuration information from the signal database, the contents of which may define and/or describe signal exchange modules, manners of communicating therewith, associations between signal exchange modules and signal objects, and other information. Based upon retrieved configuration information, the configuration and installation module may generate and/or retrieve one or more portions of a hardware interface module. The hardware interface module serves as a communication interface between a signal exchange module and the sensor/controller framework module.

See page 13, lines 23-31 and page 14, lines 1-3 of the present specification:

... passing as parameters to such executable files particular configuration information retrieved from the signal database 400. Such parameters may comprise a) one or more location identifiers that uniquely specify where the signal exchange module 214 physically and/or logically resides; b) a communication interface

definition for the signal exchange module 214, which may include a port number, one or more interrupt definitions, and/or storage element identifications and/or descriptions; c) data signal definitions for each data signal that the signal exchange module 214 may exchange; d) an event identifier, such as a number and/or character, associated with each such data signal; and/or e) other information, such as a manufacturer name and model number.

See also page 8, lines 10-16:

In one embodiment, any given framework and interface system 200 is coupled to at least one corresponding sensing and/or control subsystem 120. A sensing and/or control subsystem 120 may comprise various types of sensing and/or control elements directed toward signal acquisition and/or distribution within a particular environment. Such signals may be analog, digital, serial, or of other types, in accordance with the communication formats and/or protocols supported by the sensing and/or control elements to which they correspond. (emphasis added).

Independent claim 5 recites "a signal database storing interface communications protocol configuration information corresponding to a manner of managing communication between the hardware subsystem and the application services system". From the portions of the specification describing the signal database and cited above, it is clear that the claim language "interface communications protocol configuration information" is intended to generically cover the type of information stored in the signal database. Figure 4, for example, illustrates sample signal database objects containing exemplary information for configuring the signal exchange module 214 (Figure 2) by the module 332 (Figure 3). Thus, at least these portions of the specification provide support for the recitation of communications protocol configuration information in the claims. Accordingly, independent claim 5 and

all other independent claims satisfy Section 112 and the rejections of these claims under this section should be withdrawn.

In the current Office Action, the Examiner maintains her rejections of claims 2-37 under 35 USC § 103(a) as being unpatentable over US Patent No. 5,469,361 to Moyne (hereinafter "Moyne") in view of US Patent No. 5,980,078 to Krivoshein et al. (hereinafter "Krivoshein"). In response to previous arguments, the Examiner points to column 10, lines 25-27, column 21, lines 24-26, and column 22, lines 20-34 as disclosing the recited communications protocol interface configuration information.

The Examiner maintains that Krivoshein discloses a signal database that manages communication between a hardware subsystem and an application service system and a self configuring interface system such that the combination of Moyne and Krivoshein would have been obvious to one skilled in the art because it would be have been desirable for users to implement because it provides the ability to support automatic sensing of devices.

There is no doubt that the Krivoshein patent discloses a configuration database and the configuration of devices using this database, but this is true only in the context of a fixed communications protocol, with the example protocol used in Krivoshein being the FieldBus protocol. See column 17, lines 1-4. Krivoshein discloses no such signal database that stores communications protocol interface configuration information corresponding to a manner of managing communication between the hardware subsystem and the application services system. Krivoshein assumes communication via a predefined standardized communications protocol. See col. 21, lines 63-67 through col. 22, lines 1-35. All the configuration information discussed therein does not relate to communications protocol information but instead relates to other configuration parameters that are communicated over an assumed predefined standardized communications protocol. For example, an element of the "configuration database" referred to as "Device Tables" are discussed as defining a variety of configuration parameters, such as CAN segment numbers, controller MAC address, IP

address, subnet mask, and so on.

Amended claim 5 recites, in part, a system including a hardware subsystem, an application database, a self-configuring application services system, and a signal database storing communications protocol interface configuration information corresponding to a manner of managing communication between the hardware subsystem and the application services system. A self-configuring interface system is coupled to the hardware subsystem and the application services system and includes a configuration module coupled to retrieve interface configuration information from the signal database.

Krivoshein does not disclose or suggest a self-configuring interface system includes a configuration module coupled to retrieve communications protocol interface configuration information from the signal database. Instead, the communication is only through the predetermined communications protocol utilized in the digital control system of Krivoshein. The parameters in the configuration database of Krivoshein are not communications protocol parameters as now expressly recited in amended claim 5.

For these reasons, the combination of elements recited in claim 5 is allowable. Dependent claims 2-4 and 6-11 are allowable for at least the same reasons as claim 5 and due to the additional limitations added by each of these dependent claims.

Independent claim 12 recites a system including a hardware subsystem, an application database referencing a first software object that corresponds to a manner of processing information associated with an electrical signal. A self-configuring application services system includes a configuration module coupled to the hardware subsystem and is coupled to retrieve application service configuration information from the application database, and includes the first software object. A signal database stores communications protocol interface configuration information corresponding to a manner of managing communication between the hardware subsystem and the application services system and references a second software object that corresponds

to a manner of processing information associated with an electrical signal and associates an event code with the electrical signal. A self-configuring interface system is coupled to the hardware subsystem and the application services system and includes a configuration module coupled to retrieve interface configuration information from the signal database and the second software object.

Once again, the configuration database of Krivoshein does contemplate storing communications protocol interface configuration information but only stores predetermined communications protocol utilized in the digital control system of Krivoshein.

For these reasons, the combination of Moyne and Krivoshein neither discloses nor suggests the elements recited in claim 12. Dependent claims 13-22 are allowable for at least the same reasons as claim 12 and due to the additional limitations added by each of these dependent claims.

Independent claim 29 recites a method for processing electrical signals in a system including a hardware subsystem that includes a set of components adapted to carry electrical signals, each electrical signal associated with one from the group of a sensing operation and a control operation. The method includes retrieving application service configuration information that associates a first set of software objects with at least one electrical signal and retrieving the first set of software objects in accordance with the application service configuration information. The method further includes retrieving communications protocol interface configuration information that corresponds to the hardware subsystem and which associates a second set of software objects with at least one electrical signal and automatically generating a hardware interface for managing communication between the software object and the hardware subsystem in accordance with the communications protocol interface configuration information, the interface including associating an event code with each electrical signal.

The combination of Moyne and Krivoshein neither discloses nor suggests

retrieving communications interface configuration information that corresponds to the hardware subsystem and which associates a second set of software objects with at least one electrical signal and automatically generates a hardware interface for managing communication between the software object and the hardware subsystem. The configuration database of Krivoshein only includes parameters associated with a predetermined communications protocol utilized in the digital control system of Krivoshein and not parameters for establishing a communications protocol.

For these reasons, the combination of elements recited in claim 29 is allowable and dependent claims 30-37 are allowable for at least the same reasons as claim 29 and due to the additional limitations added by each of these dependent claims.

The present patent application is in condition for allowance. Favorable consideration and a Notice of Allowance are respectfully requested. **Should the Examiner have any further questions about the application, Applicants respectfully request the Examiner to contact the undersigned attorney at (425) 455-5575 to arrange for a telephone interview to discuss the outstanding issues.** A one-month extension of time up to and including June 12, 2009, is hereby requested. The requisite fee is included herewith. The Commissioner is hereby authorized to charge any deficiency of fees submitted herewith, or credit any overpayment, to Deposit Account No. 07-1897.

Respectfully submitted,

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